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ABSTRACT

To test the differential effectiveness of preoperative instruction (factual information, emotional expression, and trust relationship), mastery modeling, and coping modeling, 100 children, aged 7-12, were studied. Subjects from two hospitals were randomly assigned to four experimental groups and one control group: alone (the control group, N=20); mastery modeling; coping modeling; preoperative instruction with mastery modeling; or preoperative instruction with coping modeling. All children were administered the Hospital Fears Rating Scale (self-report), the Observer Rating Scale of Anxiety, and the Palmar Sweat Index (physiological measure) before and after treatment. Analysis of results showed inconsistencies between hospitals. Mastery modeling with preoperative instruction was most effective at one hospital, while preoperative instruction alone was most effective at the other hospital. In addition, mastery alone and coping alone were each effective at different hospitals. The inconsistent results may be related to childrens' differing anxiety levels, types of surgery, and socioeconomic status. (MCF)

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TREATMENT APPROACHES FOR PRESURGICAL ANXIETY: A HEALTH CARE CONCERN

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Paper presented to the American Psychological Association, Toronto, Ontario, August, 26, 1984

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Hospitalization is a stressful and anxiety-creating experience, especially for children (Cassell, 1965; Levy, 1945; Jessner, Blom & Waldfogel, 1952). The hospital experience itself may produce anxiety for the child regardless of the reason for hospitalization (Skipper & Leonard, 1968). Several researchers (Chapman, Loeb & Gibbons, 1956; Gellert, 1958) have noted that hospitalization, particularly when accompanied by surgery, may result in adverse reactions in children, including transient and long-term behavioral problems. Anxiety is of particular interest to professionals working with hospitalized children facing surgery. In addition to its contribution to the development of emotional and behavioral problems, some authors have suggested that recovery from surgery may be hindered by pre-surgical anxiety (Dumas, 1963; Giller, 1963).

The literature on hospitalized children, especially those for whom surgical procedures are planned, suggests they need some kind of psychological preparation. The purpose of preoperative preparation is to provide factual information to the child, to encourage emotional expression, and to establish a trusting relationship with the pediatric staff (Vernon, Foley, Sipowicz, & Schulman, 1965). The most frequently used method is preoperative instruction (Mellish, 1969). Various procedures involving verbal instructions and visual aids have been used to provide information to the child, to correct any misconceptions the child may have, and

to enable the child to anticipate events and understand their purpose. Puppet therapy (Cassell, 1965) and play therapy (Petrillo & Sanger, 1972) have also been used for preoperative preparation.

Demonstrations of the therapeutic use of modeling to reduce avoidance behavior caused by anxiety in children (Bandura, Grusec & Menlove, 1967; Bandura & Menlove, 1968) provide the theoretical basis for using modeling techniques to reduce children's fears regarding medical procedures. Several investigations have demonstrated methods that effectively alleviated children's anxieties about dental treatment through therapeutic modeling (Johnson & Machen, 1973; Melamed, Weinstein, Hawes & Katin-Borland, 1975; White, Akers, Green & Yates, 1974). Vernon and Bailey (1974) used a filmed modeling technique to reduce children's fears during anesthesia induction. Melamed and Siegel (1975) found that children shown a peer modeling film of a child being hospitalized and receiving surgery, in addition to the standard preoperative preparation, obtained significantly lower scores on postoperative measures of anxiety than did a control group who received only the routine preoperative instruction. Ferguson's (1979) results demonstrated that viewing a peer modeling film was associated with a decrease in children's physiologic anxiety response on preoperative measure and a significantly lowered incidence of undesirable post-hospital behavior.

Therapeutic modeling techniques have included two types of models. Bandura and his associates (Bandura, Grusex & Menlove, 1967; Bandura & Menlove, 1968) used what have come to be called "mastery" models, while other researchers (Ferguson, 1979; Melamed & Siegel, 1975) have used "coping" models. Mahoney and Arnkoff (1978) define the two:

> The mastery model is one who demonstrates a flawless performance without any sign of hesitation, emotional distress, or self-doubt. The coping model, on the other hand, displays initial performance anxieties, makes mistakes, and generally shows all the signs of an apprehensive apprentice. In keeping with therapeutic goals, however, the coping model perseveres and demonstrates strategies for controlling and coping with these diverse obstacles. (p. 707)

He referred to the distinction between coping and mastery modeling as "an intriguing subissue" and suggested the need for replication of studies which have concluded the greater efficacy of coping model strategies. Bruch (1976) also stated that the coping/mastery distinction is deserving of further empirical scrutiny.

The Melamed and Siegel and the Ferguson studies used coping models based on Meichenbaum's (1971) conclusions that film models who were initially anxious and overcame their anxiety (coping models) were more effective in reducing anxiety than models who exhibited no fear (mastery models). However, Meichenbaum's subjects were adults. He stated in a more recent publication (1977),

> More research will allow us to tailor the particular modeling technology to individual clients. It is possible, for example, that with children a mastery model may provide more effective than a coping model in helping overcome fears. . . . (p. 128)

Purpose

The utilization of a mastery and a coping model in two separate slide presentations provided a convenient format to help children reduce fears regarding hospitalization and surgery in the current investigation. The focus of the study was on three major questions:

1. Is a combination of preoperative instruction class and slide presentation utilizing a modeling procedure more effective than either method alone?

2. Is a mastery or coping model procedure more effective with hospitalized children?

3. Is there an interactive effect between type of model used (mastery versus coping) and whether or not children had preoperative instruction?

Methods

Subjects were 100 children who met the criteria for inclusion in the study from two pediatric hospitals in northeastern Ohio. Children were 7-12 years in age, had no previous hospitalizations, and were to undergo selected minor elective surgeries including tonsillectomy, adenoidectomy, cystoscopy, herniorraphy, bilateral myringotomy, and strabismus surgery.

Children were randomly assigned to four experimental groups and one control group. Twenty subjects each were

assigned to the standard treatment of preoperative instruction alone (the control group), the mastery model procedure alone treatment, the coping model procedure alone treatment, the combination of mastery model procedure and preoperative instruction treatment, and the combination of coping model procedure and preoperative instruction treatment.

All children were administered three pretest and three post-test measures of anxiety. These measures were the dependent variables and consisted of a self-report measure named the Hospital Fears Rating Scale, a behavioral measure named the Observer Rating Scale of Anxiety, and a physiological measure named the Palmar Sweat Index.

The Hospital Fears Rating Scale is based on items from the Medical Fears Subscale, factor analyzed from the Fear Survey Schedule for Children (FSS-FC). Scherer and Nakamura (1968) reported validity and reliability data for the FSS-FC. They found an overall correlation at .49 between the FSS-FC and the Children's Manifest Anxiety Scale (Castaneda, McCandless & Palermo, 1956). Several investigators have shown the FSS-FC to be sensitive to treatment manipulations (Melamed, Hawes, Heiby & Glick, 1975; Melamed, Weinstein, Hawes & Katin-Borland, 1975). The Hospital Fears Rating Scale has also been shown to be responsive to experimental treatments by Melamed and Siegel (1975), Melamed et al. (1976), and Ferguson (1979). Finally, Scherer and Nakamura (1968) reported a correlation of .94 for split-half reliability of the FSS-FC.

The Observer Rating Scale of Anxiety was developed by Melamed and Siegel (1975). It has been cross-validated by Ferguson (1979) and Melamed and Siegel (1980) but specific validity figures have not been reported. It has differentiated treated children from untreated children in several investigations (Melamed, Hawes, Heiby & Glick, 1975; Melamed, Weinstein, Hawes & Katin-Borland, 1975). In addition, inter-rater reliability has been reported to be as high as .94 (Melamed & Siegel, 1975).

The Palmar Sweat Index (PSI) (Johnson & Dabbs, 1967; Thomson & Sutarman, 1953) permits enumeration of active sweat gland activity of the hand and thus provides a measure of transitory physiological arousal. The PSI is similar to measures of the galvanic skin response (GSR) and has been found to correlate significantly with skin conductance measures (Wenger & Gilchrest, 1948). Lore (1966) demonstrated the validity and reliability of this procedure with children. He reported interfinger reliability correlations ranging between .73 and .82. One-day and 15-day test-retest reliability coefficients for the mean of all four fingers were .64 and .60 respectively. The validity data suggest that the PSI differentiated children exposed to environmentally-induced stress compared to a control group. In addition to Lore, other investigators have shown the PSI to be sensitive to situational stresses (Melamed, Hawes, Heiby & Glick, 1975; Melamed & Siegel, 1975).

Statistical Analysis

A power analysis (Cohen, 1977; Newman & Benz, 1979) was conducted to determine an appropriate sample size. When alpha level is .05 and effect size is .15 a sample size of 100 is needed for power of .80.*

$$\frac{R^2f - R^2r}{1 - R^2f}$$

Instead of multivariate analysis of variance (MANOVA) which tends to be much more difficult to interpret and less likely to reflect the specific question of interest (Cohen & Cohen, 1975; Newman & McNeil, 1972), sets of multiple regression models were run. One set was used to examine the unique variance in the dependent variable independent of the other dependent variables, e.g. the variability in the Hospital Fears Rating Scale that is independent of whatever is measured by the Observer Rating Scale of Anxiety and the Palmar Sweat Index. This procedure makes the dependent variables orthogonal and independent; it allows one clearly and easily to determine whether one is measuring unique, independent variance due to treatment.

The second set of multiple regression models was used to examine the effects of the independent variables on the dependent variables in total not controlling for their overlap, e.g. the effect of different treatments on post-test scores of the Hospital Fears Rating Scale without covarying post-test scores of the Observer Rating Scale of Anxiety and the Palmar Sweat Index.

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*R^2f = R^2 full model
R^2r = R^2 restricted model

Results

Contrasts between the data from each hospital include the following:

1. On the Hospital Fears Rating Scale pretest the mean for children at Hospital 2 was approximately 14 points higher than the mean for children at Hospital 1. In addition, the mean reduction from pre- to post-test score on the Hospital Fears Rating Scale was approximately two points for children at Hospital 1 compared with approximately eleven points for children at Hospital 2. There is the same sort of substantial difference on the Palmar Sweat Index, although this measure was not found to have statistically significant differences. (See Table 1)

2. There was a difference in percentage of types of surgeries at each hospital. Table 2 shows that percentages of tonsillectomies and adenoidectomies were higher for the first hospital but percentages of cystoscopies and "other" surgeries, the majority of which were herniorraphies, were higher for the second hospital.

3. The racial composition of each sample differed in that 98% of children were white and 2% were black at the first hospital, while 60% were white and 40% were black at the second hospital.

4. Possibly, socioeconomic differences may have existed between the hospital samples. Systematic collection of demographic data, other than age and sex, was not conducted so no attempt is made to state unequivocally that

Table 1

Means and Standard Deviations of Pretests and Post-tests for Each Hospital Separately and Both Hospitals Together

	Hospital 1		Hospital 2		Total	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
Hospital Fears Rating Scale-Pre	37.62	12.04	51.58	12.63	44.60	14.17
Hospital Fears Rating Scale-Post	35.92	12.81	40.84	9.99	38.38	11.74
Observer Rating Scale of Anxiety-Pre	16.44	4.06	15.62	4.84	16.03	4.48
Observer Rating Scale of Anxiety-Post	14.26	3.66	10.72	3.04	12.49	3.80
Palmar Sweat Index-Pre	25.04	26.60	47.47	31.62	36.26	31.30
Palmar Sweat Index-Post	22.84	27.06	40.48	31.41	31.66	30.62

Table 2

Sex and Type of Surgery

	Hospital 1 N = 50	Hospital 2 N = 50	Total N = 100
Male	52%	50%	51%
Female	48%	50%	49%
Tonsillectomy	56%	32%	44%
Adenoidectomy	20%	2%	11%
Cystoscopy	12%	26%	19%
Eye Surgery	2%	0%	1%
Ear Surgery	2%	2%	2%
Other	8%	38%	23%

Note: Tonsillectomy includes tonsillectomy alone or in combination with adenoidectomy. Adenoidectomy includes adenoidectomy alone or in combination with bilateral myringotomy with tubes and/or proetz.

there were demographic differences between the samples. However, observations by the experimenters were that the majority of children at the first hospital were from two-parent families with one or both parents employed. Also, many parents were in higher levels of occupation (business and professional) and probably had higher levels of education (some college or college graduate). On the other hand, information reported by the experimenters at the second hospital indicated children there were often from single-parent families and/or from families where parents were unemployed. Of the employed parents, many were in lower level occupations (blue-collar workers) and probably had lower levels of education (grade school or high school). Furthermore, some of the children were from foster homes or the county-supported children's home.

The data were analyzed by an analysis of covariance using a .05 alpha level and yielded a significant interaction between hospital and treatment effect, indicating the data from each hospital should be analyzed separately.

Interestingly, in the separate analyses, results were inconsistent between hospitals. The combination treatment of mastery model procedure and preoperative instruction was most effective at one hospital ($F(4,38) = 3.75$, $p < .01$), while the standard treatment of preoperative instruction alone was most effective at the other hospital ($F(4,38) = 3.41$, $p < .01$). Additionally, the mastery model procedure was more effective at one hospital ($F(1,37) = 18.06$, $p <$

.001), while the coping model procedure was more effective at the other ($F(1,37) = 5.85$, $p < .05$). (See Appendix, Tables 1-4.)

Discussion

Conclusions drawn from the study indicate that findings may not be generalized from one hospital setting to another. Treatments may be idiosyncratic so that what is effective at one hospital may not be so effective at another hospital. Such results demonstrate the importance of replication in behavioral science research.

What variables may affect treatment to produce idiosyncratic effects? Differential levels of anxiety in children, whether they are a result of personality characteristics or some other causative factor, may account for differences of treatment effect between hospital settings. It may be that for children with higher levels of self-reported anxiety a coping model procedure is more beneficial, but for children with lower levels of self-reported anxiety, a mastery model procedure is more helpful. This interpretation lends support to theories which hold that modeling is effective because children, or any observers, identify with the model. Hence, a child who is more anxious may identify with the initially apprehensive coping model and derive benefit from watching the model overcome fears; a child who is less anxious may identify with the nonanxious mastery model and derive benefit from watching the model calmly coping with the medical and surgical procedures.

Other variables to be considered are the types of surgeries children are to undergo. For example, it may be that hospitalization for cystoscopy or herniorraphy is more anxiety-provoking for most children than hospitalization for tonsillectomy or adenoidectomy. Some procedures may be more likely to engender anxiety than others and hence require special preparation of the child.

Also to be considered are demographic variables including socioeconomic differences which may produce an interactive treatment effect. Perhaps children from two-parent families and children of parents of higher socio-economic levels are generally less anxious in new or stress-producing situations, including hospitalization and surgery, than are children from single-parent families and children of parents of lower socioeconomic levels. Or it may be that parents of higher education levels are more likely to appropriately prepare their children for surgery, in addition to preparation at the hospital, than are parents of lower education levels.

Additional conclusions from the study involve the measurement of anxiety. Several researchers (Jackson & Bloomberg, 1958; Lang, 1977) have argued that manifestations of anxiety are multidimensional rather than unitary and may even represent uncorrelated dimensions. Some have suggested it is important to develop a psychophysiological definition of anxiety which incorporates measures of verbal, behavioral and physiological responses. Lang (1977) formulated the

concordance-discordance hypothesis to explain the inconsistencies between studies showing the three types of measures to vary together (e.g. Mandler et al., 1961; Melamed & Siegel, 1975) and those studies showing no or low correlations among the three types of responses (e.g. Fenz & Epstein, 1967; Miller & Bernstein, 1972). He emphasized partial independence between response systems and suggested that covariation and concordance are increased in some contexts and decreased in others. It may be that measures of physiological responses have low correlations with self-reported and behaviorally observed responses of anxiety for children in hospital settings. Or, possibly, measures of physiological responding other than palmar sweating (e.g. heart rate, blood pressure) may produce higher correlations with other types of anxiety measures for children being prepared for hospitalization and surgery. Whatever the explanation, the findings from the present investigation indicate that preoperative preparation of children differentially reduces verbal, behavioral, and physiological indicants of anxiety.

The results of the study have generated many new questions. What seemed to be a relatively straightforward approach, based upon a review of the literature, yielded less than unequivocal results when applied in a natural setting. New questions to be answered by further investigation include: What specific techniques (i.e., preoperative instruction alone or in combination with either mastery

or coping modeling) are appropriate for which children? What kind of anxiety (i.e., self-reported, observed behavioral, or physiological) is most important to reduce for optimal effectiveness in treating hospitalized children? Which techniques work best for reducing a particular kind of anxiety?

Recommendations for future research include replication of the study using dichotomized levels of anxiety to investigate further the mastery-coping model question. Another study could be devised to develop cutoff scores on particular measures of anxiety, such as the Hospital Fears Rating Scale, to aid in establishing differential treatment for high- vs. low-anxiety children. Still other investigations could be conducted with additional controls for demographic and socioeconomic differences (e.g. levels of income, education, and occupation of parents; whether the child lives with one or both parents or has some other living arrangement), for preparation by parents, and for type of surgery.

In conclusion, the most important finding of the study is that the data collection at two pediatric hospitals in close proximity with very similar preoperative instruction programs for the same age groups of children produced different results. Not only may treatment outcomes be affected by socioeconomic differences of children between hospital settings, but these differences may be confounded with different types of anxiety, differential levels of

anxiety, and the child's ability to express them. It is important that hospital staff as well as researchers be more aware of individual differences in anxiety levels of hospitalized children and consider particular methods of preparation for particular children.

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APPENDICES

List of Variables

The following is a list of the variables used in the study, including the interaction vectors for the datran statements:

X1 = age in years
X2 = sex, 1 if male, 0 otherwise
X3 = hospital, 1 if Tod, 0 otherwise
X4--X9 = type of surgery
- X4 = tonsillectomy alone or in combination with adenoidectomy
- X5 = adenoidectomy alone or in combination with BMT and/or proetz
- X6 = cystoscopy
- X7 = eye surgery
- X8 = ear surgery
- X9 = other

X10 = aware or unaware of sibling or other young relative hospitalized previously
X11--X15 = type of treatment
- X11 = mastery (Treatment 1)
- X12 = coping (Treatment 2)
- X13 = preoperative instruction (Treatment 3)
- X14 = mastery plus preoperative instruction (Treatment 4)
- X15 = coping plus preoperative instruction (Treatment 5)
- X16 = Hospital Fears Rating Scale pretest scores
- X17 = Hospital Fears Rating Scale posttest scores
- X18 = Observer Rating Scale of Anxiety pretest scores
- X19 = Observer Rating Scale of Anxiety posttest scores

X20 = Palmar Sweat Index pretest scores
X21 = Palmar Sweat Index posttest scores
X22 = surgeon vector for Hospital Fears Rating Scale
X23 = surgeon vector for Observer Rating Scales of Anxiety
X24 = surgeon vector for Palmar Sweat Index
X25 = X17-X16 = Hospital Fears Rating Scale gain scores
X26 = X19-X18 = Observer Rating Scale of Anxiety gain score
X27 = X21-X20 = Palmar Sweat Index gain score
X28 = X3*X11
X29 = X3*X12 vectors for interaction
X30 = X3*X13 between hospital and
X31 = X3*X14 treatment condition
X32 = X3*X15
X33 = X11-X28
X34 = X12-X29 vectors for interaction
X35 = X13-X30 between hospital and
X36 = X14-X31 treatment condition
X37 = X15-X32
X38 = preop
X39 = no preop
X40 = mastery
X41 = coping vectors for interaction
X42 = X38*X40 between type of
X43 = X39*X40 modeling procedure and
X44 = X38*X41 preop-nonpreop
X45 = X39*X41 condition

Table 1

Results of Interaction of Hospital and Treatments

Models	R^2	df	F	p	Sign.
Full Model: $X_{17} = (2.2196)u + (.8813)X_{16}$ + $(-7.3626)X_{28} + (-.95019)X_{29} + (-7.2709)X_{30}$ + $(-4.4535)X_{31} + (-4.4985)X_{32} + (.0035)X_{33}$ + $(5.5127)X_{34} + (-.6710)X_{35} + (-2.2695)X_{36}$ + $(.3432)X_{37} + E$	.9075				
Restricted Model: $X_{17} + (3.591i)u + (-7.0908)X_3$ + $(-.2533)X_{11} + (1.1756)X_{12} + (-.9697)X_{13}$ + $(-.2026)X_{14} + (.8411)X_{15} + (.8568)X_{16}$ + E	.8750	5/89	6.2519	.00005	S
Full Model: $X_{19} = (6.2558)u + (-.2432)X_{28}$ + $(-.7263)X_{29} + (.2552)X_{30} + (-1.5220)X_{31}$ + $(.2858)X_{32} + (.0193)X_{33} + (3.6276)X_{34}$ + $(3.8638)X_{35} + (2.1072)X_{36} + (1.8183)X_{37}$ + $(.3765)X_{18} + E$	.5242				
Restricted Model: $X_{19} = (8.2665)u + (-3.2349)X_3$ + $(-1.1044)X_{11} + 9.2266)X_{12} + 9.9347)X_{13}$ + $(-.7355)X_{14} + (.0616)X_{15} + (.3720)X_{18}$ + E	.4706	5/89	2.0039	.08575	N

Alpha = .05

Table 2

Results of Hospital 1 Data

	Models	R^2	df	F	p	Sign.
H1	Full Model: $X_{17} = (-2.9272)u + (.2941)X_1 + (-1.1332)X_2 + (.0000)X_3 + (.1979)X_{11} + (4.8874)X_{12} + (.0000)X_{13} + (-2.0806)X_{14} + (.1124)X_{15} + (.9701)X_{16} + (.0009)X_{22} + E$	.9383				
	Restricted Model: $X_{17} = (-8.5507)u + (.8139)X_1 + (-.3729)X_2 + (.0000)X_3 + (.9962)X_{16} + (-.0004)X_{22} + E$	.9109	4/40	4.4472	.00456	S
H1a	Full Model: $X_{17} = (-7.5815)u + (.2871)X_1 = (-1.5411)X_2 + (.0000)X_3 + (1.0200)X_{11} + (4.3608(X_{12} + (-.7895)X_{13} + (-1.7970)X_{14} + (.1019)X_{156} + (.9833)X_{16} + (.3459)X_{19} + (-.0025(X_{21} + (-.0019)X_{22} + E$	.9452				
	Restricted Model: $X_{17} = (-13.9000)u + (.7897)X_1 + (-1.0245)X_2 + (.0000)X_3 + (1.0088)X_{16} + (.4085)X_{19} + (.0087)X_{21} + (-.0020)X_{22} + E$	.9236	4/38	3.7525	.01143	S

Alpha = .05

Table 3

Results of Hospital 2 Data

	Models	R^2	df	F	P	Sign.
H1	Full Model: $X_{17} = (10.8872)u + (-.2877)X_1 + (-2.2361)X_2 + (.0000)X_3 + (.7223)X_{11} + (.4228)X_{12} + (-2.0085)X_{13} + (4.4426)X_{14} + (-.4389)X_{15} + (.6564)X_{16} + (-.0030)X_{22} + E$	.9122				
	Restricted Model: $X_{17} = (.28270)u + (.1912)X_1 + (-2.7640)X_2 + (.0000)X_3 + (.7320)X_{16} + (-.0008)X_{22} + E$	.8847	4/40	3.1287	.02491	S
H1a	Full Model: $X_{17} = (10.3792)u + (-.3524)X_1 + (-2.1364)X_2 + (.0000)X_3 = (.1869)X_{11} + (.1688)X_{12} + (-2.8839)X_{13} + (4.2445)X_{14} + (1.0811)X_{15} + (.6466)X_{16} + (.1931)X_{19} + (-.0049)X_{21} + (.0021)X_{22} + E$	.9154				
	Restricted Model: $X_{17} = (2.1103)u + (.1747)X_1 + (-2.7657)X_2 + (.0000)X_3 + (.7325)X_{16} + (.0661)X_{19} + (.0013)X_{21} + (-.0004)X_{22} + E$	.8851	4/38	3.4107	.01771	S

Alpha = .05

Table 4

Summary of Significant Findings

	r	R^2	df	F	p	Sign.
Hospital and Treatment Conditions:						
HFRS	.70				.001	S
ORSA	.32				.05	S
Hospital X Treatment Interaction:						
HFRS		.90756	5/89	6.2519	.00005	S
		.87509				
Separate Analyses for HFRS:						
Hospital 1		.93836	4/40	4.4472	.00456	S
		.91095				
		.94526	4/38	3.7525	.01143	S
		.92364				
Separate Analyses for HFRS:						
Hospital 2		.91225	4/40	3.1287	.02491	S
		.88479				
		.91547	4/38	3.4107	.01771	S
		.88479				

Table 4 (continued)

	r	R^2	df	F	p	Sign.
Mastery vs. Coping:						
Hospital 1						
HFRS		.9206				
			1/37	18.0662	.00014	S
		.8819				
ORSA		.6064				
			1/37	4.7164	.03635	S
		.5562				
Hospital 2						
HFRS		.8595				
			1/37	5.8548	.02056	S
		.8372				

Note: HFRS = Hospital Fears Rating Scale
ORSA = Observer Rating Scale of Anxiety
Alpha = .05